

Annual Report 1997-1998



Our People Our Future



Nova Scotia Agricultural College



Annual Report
1997-1998

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Our People Our Future

Annual Reports provide an important opportunity to reflect and evaluate progress made toward particular goals. In that regard, the NSAC has made progress toward its goals of excellence in teaching and research as well as making strides in research partnerships, advances in academic programs and international work in 1997-98. The content of this report reflects that progress.

Principal's Message



The theme of this report is "Our People, Our Future." Like other academic institutions, people are the critical element at the centre of all activity at the NSAC whether it be students coming to the campus in search of knowledge or faculty and staff assembling and providing access to that knowledge in one form or another. It is the interaction among these people that makes it work now and will continue to make it work in the future.

We celebrate the success and recognition earned by individual teachers and researchers through local, national and international awards. We also celebrate the success of our students and graduates in their academic and athletic achievements as well as their high rate of employment and acceptance for further studies. They bring honour to the College as well as to themselves.

Among the structural changes which occurred in 1997-98 was that of mergers of four academic units into two new departments. In one case, the former departments of Biology and Chemistry and Soil Science were merged to create a new Department of Environmental Sciences with Dr. Randy Olson as Head. Similarly, the Department of Humanities was merged with Mathematics and Physics to create the Department of Mathematics, Physics and Humanities

under the management of Professor Carl Madigan as Head. Other changes included the appointment of Dr. Derek Anderson as Head of the Department of Animal Science and Dr. Jerzy Nowak as Head of the Department of Plant Science.

We are pleased to report on progress made in 1997-98 and invite our readers to seek additional information on all topics of interest, whether or not they are included in this report.

Sincerely,

A handwritten signature in dark ink, appearing to read "Garth Coffin".

Garth Coffin, Principal



Our People Our Future

The Nova Scotia Agricultural College is the only institution of higher education in the Atlantic region dedicated to agriculture. With a well-established tradition of teaching behind them, professors take a personal interest in students who are also encouraged to participate in other areas of college life, including a variety of sports teams, clubs and social activities.

Teaching and Innovation

NSAC has many award-winning researchers and faculty members.

John Tait Receives Excellence in Teaching Award



Professor John Tait

Professor John Tait was honoured at the annual meeting of the Canadian Association of Diploma in Agriculture Programs (CADAP) for excellence in teaching, his fourth such honour.

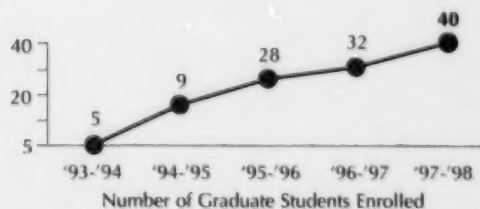
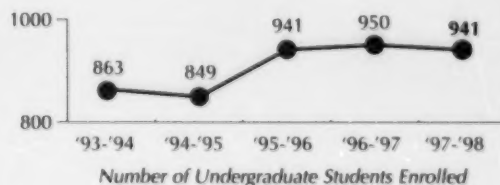
Professor Tait, a member of the NSAC faculty since 1970, has previously been recognized for his outstanding teaching by the Association of Faculties of Agriculture, the Outstanding Teacher Award for Canada and the NSAC Faculty Award.

The CADAP Teaching award was approved in 1995 and is presented annually to an outstanding teacher at the institution that hosts the CADAP annual meeting. The award recognizes a sustained record of excellent teaching. Professor Tait was the 1997 recipient. Professor Tait also served as Department Head in the Economics and Business Management Department for 25 years.

NSAC – Turning Passions Into Realities

228 Students Graduate May 1, 1998

Two hundred and twenty-eight students crossed the stage during NSAC's 93rd Convocation ceremony, Friday May 1st, 1998, including five Masters students; ninety per cent of whom were employed or pursuing further studies within six months.



Teaching and Innovation

Top-notch Teachers and Researcher Recognized



Recipients of Faculty and Staff Research and Teaching Awards presented at Convocation are from left to right: Dr. Alan Fredeen, Research Award winner; Judy Grant, Animal Science Technician Teaching Award winner and Dr. Graham Pearson, Math, Physics and Humanities winner of the Faculty Teaching Award.

The outstanding contributions of faculty do not go unrecognized at the Nova Scotia Agricultural College. Excellence in teaching and research are recognized annually during Convocation ceremonies.

Professor Graham Pearson received the 1998 NSAC Faculty Award for Achievement in Teaching. Judy Grant was given the Technician Award for Achievement in Teaching and Dr. Al Fredeen, animal science professor and researcher was also recognized with the Faculty Research Award.



Dean Rob Stevens

NSAC Peer Discipline Initiatives Get Recognized

Dean R. M. Stevens receives 1997 Special Projects Grant

The Atlantic Association of College and University Student Services has awarded NSAC a Special Projects Grant to undertake research in comparing Canadian University procedures in student discipline to that of British Universities. The grant assisted Dean Stevens to attend an international conference at the University of Warwick in England. Co-sponsored by the University of South Carolina, the conference dealt with issues which play a part in improving student success at university. Stevens was also recognized by the National Association of Canadian College and University Student Services for his contributions as an active board member and his committee work.

Teaching and Innovation

Honourary Degree and Award Recipients

The NSAC awarded an honorary degree to an outstanding educator, businessman and community leader at the 1998 Convocation ceremony in addition to two emeritus awards. Dr. Harold Chute, a leading scientist in the area of poultry disease control was awarded a Doctor of Laws, Honouris Causa; Dale Ells was appointed Dean Emeritus and Ian Fraser, Vice Principal Emeritus.



Dr. Harold L. Chute

Dr. Harold L. Chute, is an NSAC alumnus, having earned an Associate Diploma in 1944. He also earned his Masters and PhD in Veterinary medicine at the University of Guelph, making significant contributions to the poultry industry through teaching, research and production at the University of Maine where he worked for nearly 30 years. Before his retirement in 1995, he founded Chute Chemical Company, an industrial specialty company from which has resulted several US patents, before his retirement in 1995.

Dr. Chute served as President of many professional organizations throughout his career, receiving the Pope Award in 1990. His many civic and fraternal activities range from becoming the first mayor of the town of Orono, ME to establishing the DeMolay Pine Tree Youth Foundation

which provides scholarships to boys and girls.

Mr. Dale Ells is also an NSAC alumnus, having earned a degree diploma with high honors in 1959. He also earned a B.Sc. (Horticulture) McGill and his Masters in Economics (Acadia). This professional agrologist was Dean of Vocational and Technical Education for nearly 30 years, as well as associate professor and Director of International Development at NSAC. He is currently President and CEO of Agrarian Development Services.



Dean Emeritus Mr. Dale Ells



Vice-Principal Emeritus Mr. Ian Fraser

Mr. Ian Fraser earned his B.Sc (Dalhousie); his MA in Mathematics (Maine) and his MBA Finance, also from Dalhousie. Mr. Fraser has held a variety of positions within the NSAC for more than 30 years including, Vice Principal, Head - Department of Math and Physics, Professor of Math and Physics and Librarian. He also enjoyed chairing the Student/Faculty Liaison Committee. He is currently a partner with his wife Carol in Dove Training & Consulting Ltd.

Teaching and Innovation

NSAC Develops via the World Wide Webb



Fourth year student Andrea Roberts checks her course selections over the summer via the world wide web.

As the College moves deeper into the electronic age, it continues to search for low-cost solutions for small institutions.

In this regard, the NSAC has developed, internally, a technology which enables students to register for courses or review their academic record from an internet site anywhere in the world! Besides the extra convenience to domestic students, this facilitates NSAC's global reach via the World Wide Web. The NSAC is at the forefront of the development and application of this technology at a fraction of the cost facing most institutions.



Jane Peebles, RN

Award-winning Health Care Innovator

NS Registered Nurses' Association recognize NSAC Nurse

Jane Peebles, charm and determination stimulated inspiring debates and challenged NSAC students to innovate in the face of harrowing health and social issues. Now her inroads to effective university health care have won recognition beyond NSAC borders. The Registered Nurses, Association of Nova Scotia (RNANS) awarded Ms. Peebles the Client/Public Health Advocacy Award for her contributions to improve the health, well-being and safety of Nova Scotians.

Her innovations in health care stem from a desire to make a difference and she has made more than one. She has increased access to needed health care services such as anonymous HIV testing, wellness health clinics, wart clinics and birth control. In addition, she ran one of the earliest peer education groups in Nova Scotia and initiated a gay, lesbian and bisexual support group, a women's spirituality group and a walk safe program.

Teaching and Innovation

Sandy Patterson Receives Extension Award

Sandy Patterson, who has contributed significantly to the extension movement for over 27 years and has helped in the development and education of thousands of people in the agricultural community was awarded the C.A. Douglas Extension Award.

Mr. Patterson joined the staff of the NSAC working in the design and development of extension programs of the Continuing Education and Vocational training section in 1975. In a series of progressive positions and building on his early practical farm experience, Mr. Patterson honed his skills in extension education and began many of the outreach programs which have served and continue to serve the agricultural community today.

Serving as Assistant Director of the Centre for Continuing Education, Mr. Patterson has continued to design and manage quality educational programming for the agricultural industry and rural community making him a deserving recipient of the 1998 CA Douglas Extension Award.



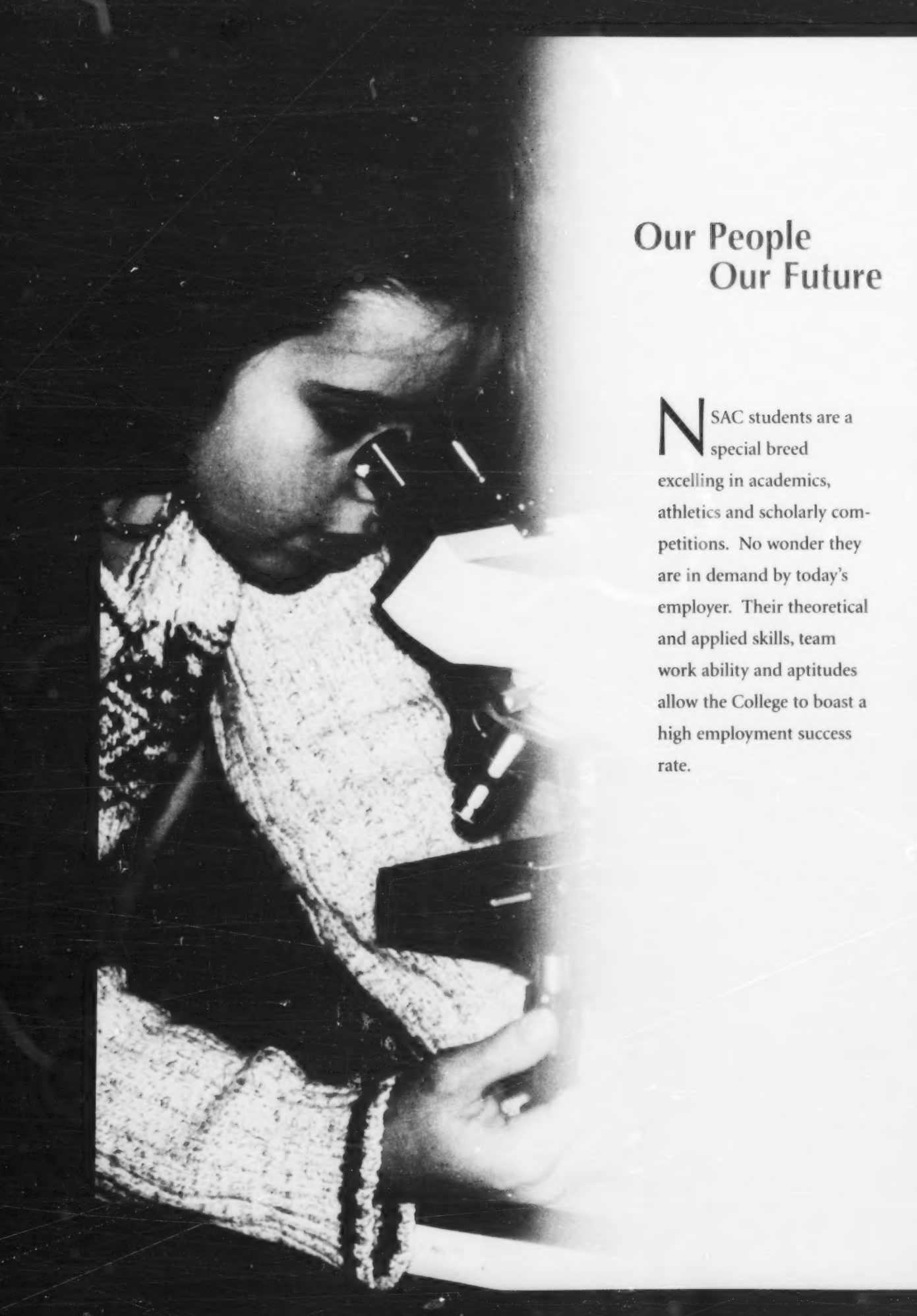
1998 CA Douglas Extension Award Winner Sandy Patterson.



Jill Rogers-Langille visits aquaculture graduate student Cynthia White at the aquaculture facility in the Animal Science building.

Graduate Coordinator Appointed

Jill Rogers-Langille, an educator with specialization in Ecology and Weed Science, joined the Nova Scotia Agricultural College as Coordinator of Research and Graduate Studies in August 1997. Ms. Langille's role is to administer the College's Masters program and to coordinate Faculty research programs.

A black and white photograph of a young child, possibly a girl, looking through a microscope. The child is wearing a light-colored, textured sweater. The image is split vertically by a bright, glowing light source, creating a high-contrast effect. The left side is dark, while the right side is bright, highlighting the child's face and the microscope.

Our People Our Future

NSAC students are a special breed excelling in academics, athletics and scholarly competitions. No wonder they are in demand by today's employer. Their theoretical and applied skills, team work ability and aptitudes allow the College to boast a high employment success rate.

Student/Alumni Excellence

90 per cent of NSAC's 1998 students were employed on graduation or enrolled in further study.

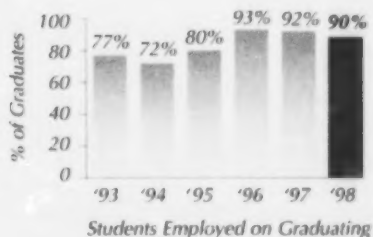
Seven NSAC Student-Athletes Named Academic All-Canadians



*1997-98 Academic All-Canadians: Front Row: Dr. Coffin, Scott Kennedy - Soccer, Velma Cann - Soccer, Sherri MacKay - Soccer
Back Row: Jaime Montgomery - Volleyball, Rob MacGregor - Basketball, Matt Taylor - Volleyball and Warren Giovanetti - Soccer.*

Seven NSAC students/athletes have been named Academic All-Canadians, an honor bestowed on only 59 students across the country, 14 of which can be found in the Atlantic provinces.

An Academic All Canadian Award is a certificate signed by the Canadian Colleges Athletic Association President to recognize student-athletes who have achieved an honors standing combined with excellence in College athletics. Award winners at NSAC have been named to an All-Conference Team and achieved honors, (75 per cent) or high honors (80 per cent).



Student/Alumni Excellence

Storm Troopers - NSAC Students join Quebec Relief Effort



NSAC relief effort team preparing to board the train to Montreal. Pictured with the students are NSAC Principal Dr. Garth Coffin, Eleanor Norrie, Liberal MLA, Dr. Bernie MacDonald, Vice-Principal, Dr. Derek Anderson, head of Animal Science and Jamie Muir, Conservative MLA.

The NSAC community rallied to help tired farmers in Quebec who suffered the long-lasting effects of a severe ice storm.

The idea to send NSAC students to help originated from Al Fredeen, animal science professor. The student volunteers were sent after Jeff Gunn, ruminant animal coordinator, determined a need for help from the Quebec Farmers Association. Responding to this need, 13 NSAC students traveled to Montreal, courtesy of Via Rail on January 18. Returning safely to Truro on January 25 with more than their luggage, students gained a lifetime of experience and stories.

Governor General Medal Winners



Timothy Davison - Wolfville NS, received the Governor General Collegiate Bronze Medal; Cherie Riggs - Canning NS, received the Governor General Silver Medal and Jill Rogers-Langille - East Earltown NS, received the Governor General Gold Medal.

who graduated at the Fall Convocation at Dalhousie through the joint NSAC/Dalhousie M.Sc. program received the Governor General Gold Medal.

Shown following Convocation are Governor General Medal recipients from left to right: Timothy Davison, Wolfville, NS, a graduate of the Agricultural Engineering Technician program who received the Governor General Collegiate Bronze Medal. Cherie Riggs - Canning NS, a graduate from the B.Sc.(Agr.) program with a major in Animal Science, recipient of the Governor General Silver Medal and Jill Rogers-Langille, East Earltown NS, an M.Sc. graduate

Student/Alumni Excellence



Senator Archie Johnstone,
Kensington PEI, Class of 1947

Islander named Senator

Johnstone Headed to the Upper Chamber

Speculation on who would be Canada's next senator from Prince Edward Island was put to rest when a phone call from the prime minister summoned Archie Johnstone of Kensington to the post.

Johnstone is best known to Islanders for the creation, with his father, of Woodleigh Replicas and his establishment and longtime partnership in Rainbow Valley. He has enjoyed great success in numerous other business pursuits over the past 40 years and is currently operating the newly-opened Kensington Tower and Water Gardens with his son.

Johnstone received his Diploma in Agriculture in 1947 from the NSAC and was one of two Canadian Agriculturalists awarded six months travel and study in the United Kingdom in 1955.

1998 Distinguished Alumnus Award Winner – Dr. James R. Wright

His personal integrity and strong sense of responsibility to his profession and the region has earned him the upmost respect of all those with whom he has worked throughout his professional career.

The 1998 Distinguished Alumnus Award was presented to Dr. James R. Wright.

As a distinguished soil scientist and administrator Dr. James Wright has demonstrated outstanding leadership and judgement in the direction of Agriculture Canada's research stations at Kentville and Nappan. Because of his wide breadth of knowledge of the agricultural industry in the Atlantic, in Canada and abroad his advice and good judgement has been sought by a diverse group of organizations and committees devoted to the development of agriculture in the region. His personal integrity and strong sense of responsibility to his profession and the region has earned him the upmost respect of all those with whom he has worked throughout his professional career.

Dr. Wright remains a strong supporter of the NSAC where his professional career began. His distinguished career, dedication to agriculture, great leadership qualities combined with a passion for helping others and his humble spirit made him a very deserving recipient of the NSAC Distinguished Alumnus Award for 1998.



Dr. James R. Wright

Student/Alumni Excellence

Women's Soccer ACAA Champions



Women's Atlantic Colleges Athletic Association Soccer Champions

For the first time in history an NSAC Women's soccer team won the Atlantic Colleges Athletic Association Soccer Championship. The girls represented the College in Montreal at the Canadian Collegiate Athletic Association (CCAA) National Championships. The team finished the year at sixth in the country and were awarded the prestigious Team Sportsmanship Award.

Aquaculture, Vegas Style...

NSAC Masters Student still reeling after International Conference



Sean Tibbetts, NSAC Masters student presented his Master's thesis in Las Vegas.

Researching one of the more obscure Maritime aquaculture species, Sean Tibbetts NSAC masters student was stylin' with eels in Las Vegas. The Aquaculture '98 conference entitled "You Can Bet on Aquaculture" hosted more than 4000 people showcasing a diverse selection of scientific posters and oral presentations.

The focus of Sean's Masters thesis was the nutritional development of juvenile American eels. Currently, juvenile American eel diets are an Atlantic Salmon starter diet. The level of nutrition may not be entirely appropriate for American eels. Sean's research will work to pinpoint suitable protein and energy levels for eels. This work will help feed companies to tailor a diet specific to American eels. Eel farmers may soon feel the impact of this research in their wallet. A feed designed specifically for the American eel has the potential to lower feed prices as Sean suspects lower protein levels are needed for American eels than for Atlantic Salmon.

Sean is analysing data and will be compiling his research in the fall which is expected to be published in the *Journal of Aquaculture* next year.

Student/Alumni Excellence

NSAC Principal's List Posted - *90 Students honoured for academic achievement*

Ninety NSAC students were honoured for high academic standing March 25th by being placed on the Principal's List at the Nova Scotia Agricultural College. Students on the Principal's List are within the top ten per cent in their program and maintain an average of 80 per cent or higher.

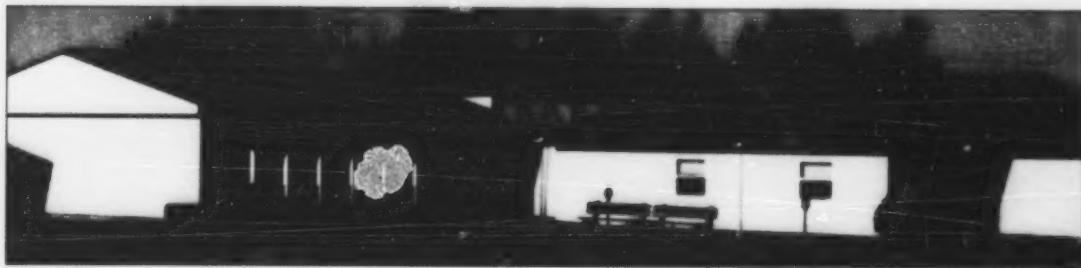
In recognition of their achievement, students attended an evening reception at the Riverview Room with guest speaker Col. Bob Baxter, Executive Director of the Truro and District Chamber of Commerce. Students also received an engraved plaque to mark the occasion.

NSAC Places Second Overall in Annual Ag-Challenge Competition

In June NSAC placed second at Ag-Challenge, an academic competition amongst top agricultural students from across Canada and the United States. The ninth annual Ag-Challenge was held in Saskatoon in conjunction with the Western Canadian Farm Progress Show.

Teams from Laval, Guelph, McGill and NSAC competed in three categories; presentations, debating and the team challenge. The NSAC team members were Rebecca Eisses, Mark Schurman, Daniel Scothorn and Lisa White.

Graduate Students Find a Home



The NSAC graduate student Residence at AgriTECH Park.

NSAC Graduate students now have a place to call home. The first Graduate student residence opened at AgriTECH Park, approximately three kms from campus in September. Fundy Residence allows grad students and mature students, an opportunity to reside with their peer group in an apartment like setting. The units are self contained and the students self governed with the exception of a Resident

Coordinator. Students share access to a common TV area, kitchen, washroom and laundry. The Residence is fully equipped with fridge, stove, microwave and furnished small or large single rooms.



Our People Our Future

As the only comprehensive research centre for agriculture in Atlantic Canada, the Nova Scotia Agricultural College has established itself as a model of industrial partnering. With a motivated, forward-thinking faculty, highly committed to research programs while maintaining full teaching loads, the College has also become a model of regional co-operation with other institutions of higher learning throughout Atlantic Canada

Agri-Food Leadership

*NSAC, a model of
industrial partnering at national
and international levels.*

Industrial Partnership forged in Turfgrass Research

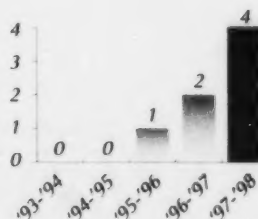
Agriculture and Marketing Minister Ed Lorraine announced the establishment of a new Research Chair in Turfgrass at the Nova Scotia Agricultural College (NSAC) in Truro.

The project is funded by the NSAC and the Atlantic Turf Research Foundation (ATRF) and will provide support to research and development programs in turfgrass at the College.

NSDAM and the AtlanticTurf Research Foundation have each committed \$75,000 to fund the Research Chair over the next three years. Doug Cattani will lead the project and work closely with the turf industry to identify its needs, evaluate and prioritize research and development proposals and direct applied research that will positively impact the turfgrass industry in Atlantic Canada. Cattani will conduct his research from the NSAC's Department of Plant Science in Truro.



Dr. Bob Daniels, Director NSAC Turf Research Centre and professor of Turf Science, uses a pentrometer to measure the rate of water infiltration into the NSAC's experimental turf research plot.



Number of Industry/NSDAM co-sponsored research professorship positions per year.

Agri-Food Leadership



Dr. Rajasekaran Lada

Carrot Research Professor To Begin at NSAC

Dr. Rajasekaran Lada, a Post-Doctoral Research Associate at the University of Toronto joined the Nova Scotia Agricultural College as Research Professor in Carrot Processing in February 1998.

Dr. Lada, who has extensive experience with vegetable crops, production and research, will work closely with the Carrot Research Advisory Committee on such priorities as soil conservation, variety evaluation, insect and disease management, harvest and post-harvest technology. Representatives for producers, processors, government and the NSAC comprise this Advisory Committee. A three-year commitment of \$75,000 from Oxford Frozen Foods Ltd., matched by the Nova Scotia Department of Agriculture and Marketing, has enabled the Nova Scotia Agricultural College to establish this research position in the Department of Plant Science.

Potato Research Partnership

An exciting new partnership in potato research was announced at the Nova Scotia Agricultural College in Truro. The partnership, bringing together industry and government, provides matching funds to support potato physiology research.

Initial funding from McCain Foods Limited of \$90,000 was matched jointly by the Nova Scotia Department of Agriculture and Marketing and the Prince Edward Island Department of Agriculture and Forestry, to establish a research position in potato physiology and potato production issues at the College.

The program will involve the hiring of a research professor in potato physiology for three years. The professor will also train and supervise the research of graduate students at the College to support the continued development of the potato industry in the region.



Plant Science Department Head Jerzy Nowak and Sam Asiedu, potato researcher and professor celebrate the announcement of the potato research partnership with McCain Foods.

Agri-Food Leadership

Managing Today's Dairy Farm

NSAC researchers investigate sustainability of Canada's Dairy Operations



Photo courtesy of NSDAM

Dairy Farmers of Canada and the Natural Sciences and Engineering Research Council have funded a team of researchers based at the Nova Scotia Agricultural College to investigate the economic and environmental sustainability of Canadian dairy farms. Researchers at the NSAC will attempt to identify specific management strategies that enhance sustainability while enabling dairy farmers to adjust appropriately to economic, environmental and policy changes.

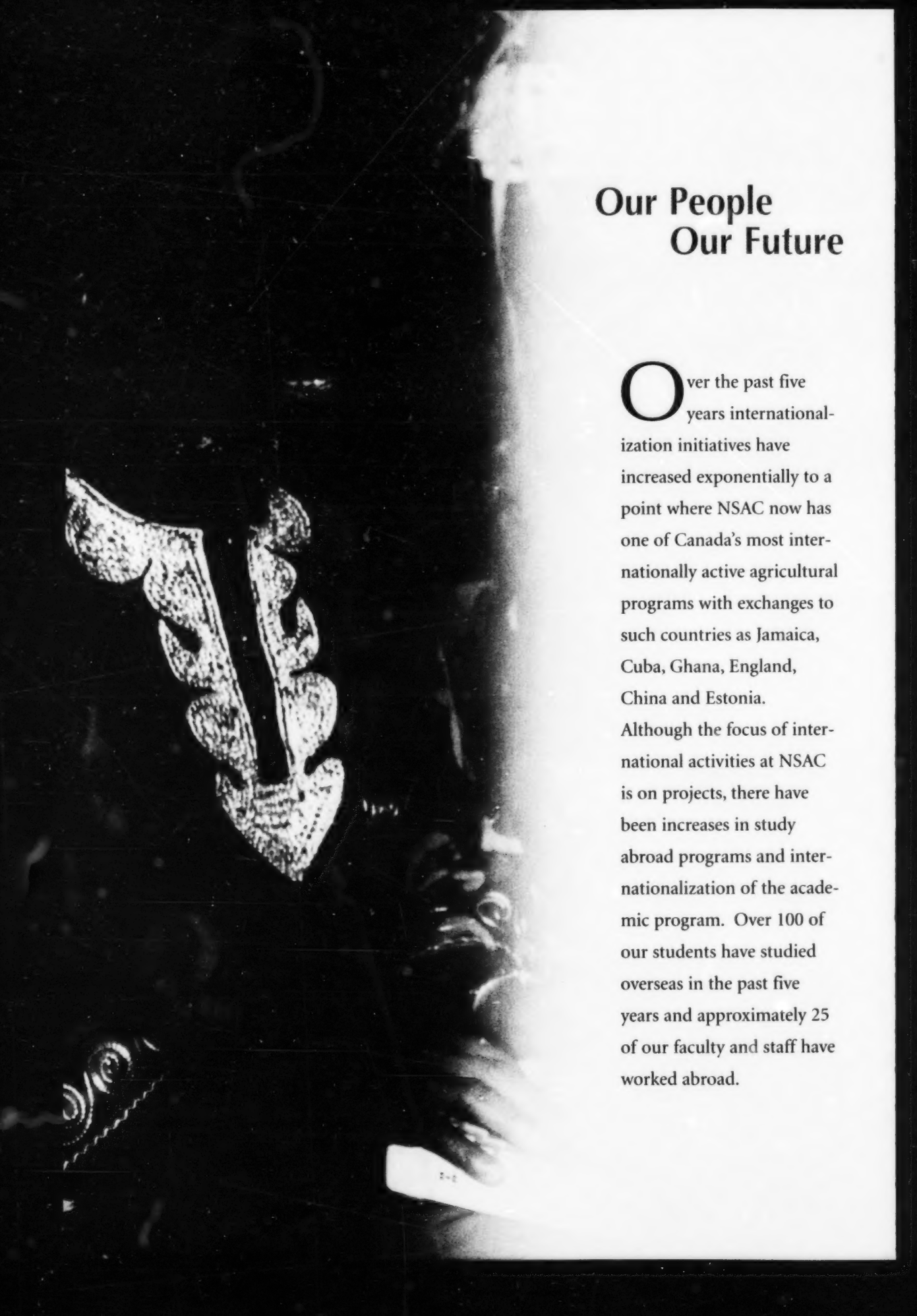
Ten dairy farms have been selected from each of five major agricultural areas in Canada. The farms within each region will span the range of production capacities and input requirements. Each farm will be visited by NSAC student Stacey Weatherbee who will record economic, nutrient and energy inputs and outputs of the farm. The information collected will then be used to modify the Atlantic Dairy Farm Model, a computer model developed at the NSAC.



Top Selling Ram

Congratulations are extended to the Ruminant Animal Centre and Animal Science Department staff for receiving the top sale price for their Texel yearling Ram at the All Canada Sheep Classic Show and Sale. The event, hosted by the Purebred Sheep Breeders Association of Nova Scotia was held at the MacMillan Show Centre in June.

Gary Wallace, Sheep Unit Manager, NSAC poses with New Scotia Will, the top selling Ram at the sale. Also present is Ted Lund and family, Wallace, N.S., who purchased the Ram. Pam Pauley photo.



Our People Our Future

Over the past five years internationalization initiatives have increased exponentially to a point where NSAC now has one of Canada's most internationally active agricultural programs with exchanges to such countries as Jamaica, Cuba, Ghana, England, China and Estonia. Although the focus of international activities at NSAC is on projects, there have been increases in study abroad programs and internationalization of the academic program. Over 100 of our students have studied overseas in the past five years and approximately 25 of our faculty and staff have worked abroad.

Around the World

NSAC has exchanges in Jamaica, Cuba, Ghana, England, China and Estonia.

Five Year \$7,000,000 International Project Funded

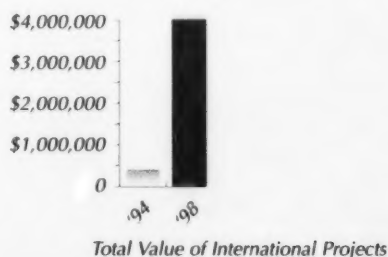
The Nova Scotia Agricultural College will play an integral part in a recently awarded five-year project to undertake community-based conservation management training in China and Vietnam.

The consortium, lead by St. Mary's University, includes DalTech and UNB (Saint John). Overseas partners are Fujian Agricultural University, Xiamen University and the Vietnam National University.

The project attempts to respond to major gaps that exist in species conservation and habitat protection in China and Vietnam, especially in terms of inter-disciplinary expertise to promote community-based management. NSAC faculty and staff involved in developing the successful proposal were Dr. Dian Patterson, Dr. Claude Caldwell and Bill Radford. Dr. Patterson will lead the NSAC team participating in the project which will offer opportunities to faculty and students alike.



Fish ponds at the Fujian Agricultural University



Around the World



Drs. David Dolly, University West Indies - Trinidad; Evelyn Belleze, University of the Philippines in the Visayas; Elly Ishak, Hasanuddin University of Indonesia; Balfour Spence University West Indies - Jamaica and Claude Caldwell, coordinators for the Island Food Systems Course

Island Sustainability Livelihood and Equity (ISLE)

This Canadian International Development Agency (CIDA) sponsored project links Nova Scotia Agricultural College with Dalhousie University, DalTech, University of Prince Edward Island, University of the West Indies (UWI), University

of the Philippines in the Visayas (UPV) and Hasanuddin University (UNHAS) of Indonesia.

NSAC has taken an active role in this project through its leadership of the Island Food Systems (IFS) course which was offered to graduate and senior undergraduate students at NSAC. IFS is currently being offered in Indonesia and will be offered in the Philippines in the summer of '98.

NSAC strengthens Ties with Cuba

Dr Garth Coffin, Principal, Nova Scotia Agricultural College and Dr Jose Saborido, Rector of the University of Cienfuegos, Cuba, signed a Memorandum of Understanding to facilitate collaboration between their respective institutions.

The agreement signals an intention to work with the people at Cienfuegos to help solve some of Cuba's agricultural problems as part of the NSAC's internationalization program. The College expects to learn from this process as well as



Shown here is an organoponico, otherwise known as an urban garden, in Cienfuegos, Cuba. Community members manage their own section, growing highly productive vegetables organically. This is a classic example of Cuban efficiency and ingenuity.

contribute to the transfer of knowledge and technology. Plans are being developed for student educational and staff employment exchanges, joint research activities and joint participation in seminars and academic meetings.

Around the World

Multi-Media Art Exhibit Held



Opening of the Bom Dwen exhibit (L) to (R) Dr. Coffin, Cynthia Murphy, Sam Asiedu, Bill Radford, Joy Laking, Emmanuel Yiridoe, Brian Rockliffe - Director, VSO Canada.

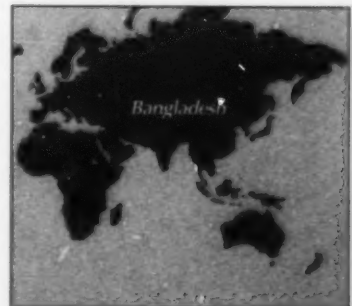


The Nova Scotia Agricultural College joined forces with Voluntary Service Overseas (VSO Canada) to host a multi-media exhibit exploring the lives of women in Ghana. Entitled Bom Dwen which means "Thinking Together", in the Twi language common to Ghana, the exhibit brought together the works of Ghanaian and Canadian artists through the use of art, artifacts, photos and video.

NSAC is strengthening its educational ties with Ghana with the newly implemented Agri-Entrepreneurship Program aimed at women living in northern Ghana. Complementing this initiative, the exhibit portrays the richness and complexity of life in Africa, particularly the life of Ghanaian women.

Farm to Market Enterprise Development Project, Bangladesh

The Association of Canadian Community Colleges is the lead institution of this CIDA project in Bangladesh with partners being NSAC, Olds College, Assiniboine Community College, Nova Scotia Federation of Agriculture, Nova Scotia Department of Agriculture and Marketing and Saint Mary's University. The direction of the eastern component of this project lies with Bill Radford of the NSAC International Centre.





Our People Our Future

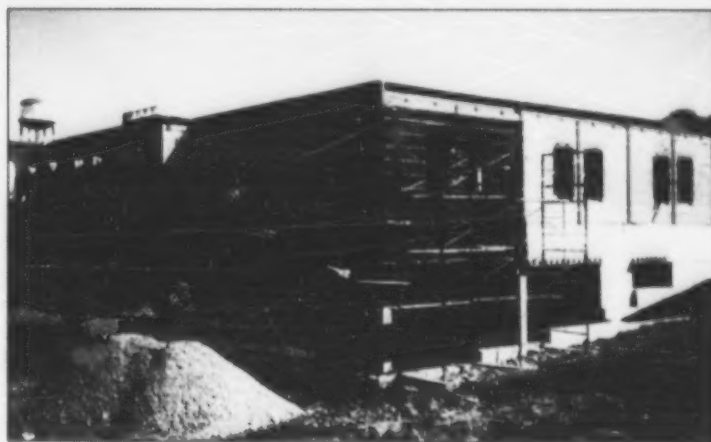
The Nova Scotia Agricultural College, with its long, established record of hands-on education, its well-balanced program of applied courses and strong international focus, reaffirms its commitment to sustainable agriculture while striving to provide worldwide leadership in agricultural research and education.

Breaking New Ground

NSAC strives to provide leadership in agricultural research and education.

Aquaculture Facility Expansion

The College is constructing a 12,000 square foot on-campus aquaculture training facility to provide students with ongoing contact with finfish and shellfish species of both current and emerging economic importance to the region.



The NSAC new aquaculture training facility is currently under construction.

The Aquaculture program at NSAC is a production-oriented, applied program of study launched in 1995 and is the only comprehensive professional program focussing on aquaculture in Atlantic Canada. The program involves ten courses specific to aquaculture. These, combined with courses in economics and business and other sciences, provides the unique blend of husbandry and management training considered necessary for professionals involved in the production and processing of food from aquatic species.

Phase Two has been completed including exterior brick work, doors, windows and substantial completion of the ground floor offices, labs and aquaculture rooms. Phase Four was completed in June and included the completion of the interior of the second

floor offices, classrooms and specialized studio and work areas for Continuing and Distance Education. Phase Three work remains, including all mechanical systems to store and deliver high and low temperature, fresh and salt water to fish holding areas.

Breaking New Ground

NSAC Announces Bachelor of Technology Degree

Landscape Horticulture to become first major



NSAC Landscape Horticulture student Lenny Laronde, employed with the NSAC Grounds crew for the summer, shapes and prunes shrubs on campus.

The Nova Scotia Agricultural College has provided yet another reason for students to study at the leading agricultural institution in Atlantic Canada.

The Bachelor of Technology degree, introduced in September 1997, blends high level skills acquisition with theoretical knowledge, producing advanced graduates in specific technology disciplines. Students are provided with the unique opportunity to develop state-of-the art practical skills while building a thorough understanding for the current theoretical standards of their particular areas of interest.

The Landscape Horticulture Major within the Bachelor of Technology degree program, is the first such major to be offered in Canada, providing an opportunity for graduates to upgrade their qualification in two years. An emphasis on science, such as ecology and soil management, coupled with elective study in areas of landscape design, construction and business management, will prepare graduates for all aspects of the landscape industry. The program provides opportunity for student exchanges to Alberta and the UK, cooperative work experience, individualized study and advanced technical and management training designed to broaden students knowledge and experience.

Raspberry Research Honoured

American Society for Horticultural Science Honours NSAC Scientist

Dr. David Percival, NSAC scientist, was honoured by the esteemed American Society for Horticultural Science. With members in more than 100 countries, the society selected Percival as the 1997 recipient of the Fruit Publication Award for his paper on the environmental physiology of raspberries. The annual award honours the most outstanding paper on fruit crops published in the society's three journals - *HortScience*, *HortTechnology* and the *Journal of the American Society of Horticultural Science*.

Competing with a myriad of scientists worldwide, Percival's paper; *Whole Plant Exchange of Raspberry as Influenced by Air and Root-zone Temperature, CO₂ Concentration, Irradiation, and Humidity* was selected for the honour. David, along with professors John Proctor and Jim Tsujita (Guelph University) are the first Canadians to receive the award.



Dr. David Percival

Breaking New Ground

Improving the Survival and Growth of Larval Striped Bass

Bay of Fundy Striped Bass are the subject of novel research being undertaken by Dr. Jim Duston in the Aquaculture section of the Animal Science Department at NSAC. Dr. Duston will determine how specific physical environmental factors and food density affect survival and growth with respect to body size, of a Bay of Fundy stock of striped bass.

The proposed work is innovative as little is known of the environmental physiology of this stock of striped bass, which is genetically distinct from better studied southern U.S. stocks and may have evolved unique adaptations to the relatively cooler and highly turbid conditions of the Upper Bay of Fundy.

The work will be of significance to culturists seeking to optimize rearing conditions, to fisheries managers seeking factors affecting recruitment of this threatened stock and possibly to evolutionary biologists interested in physiological and behavioral divergence within a species caused by differences in environment across its geographic range.



Professor Jim Duston weighs and measures bass as a component of his research.



Dr. Norman Goodyear, Plant Science Department and Alain Joseph (M.Sc. student) measure the effects of liming treatments on radish, as part of a study in the use of fly ash as a soil amendment for vegetable production, based in Point Edward, Cape Breton Island, N.S.

Ash Crops - Point Aconi Ash *Nutrient-rich Soil Amendment in Vegetable Production*

Previously bound for Maritime landfills, Point Aconi ash is now blanketing NSAC research plots. A coal combustion by-product from the Point Aconi Generating Station, ash is under investigation as an agricultural soil amendment in vegetable and forage production. NSAC researchers Maggie Hope-Simpson and Dr. Norman Goodyear have completed the first field season of the three-year study with encouraging results.

"I'm interested in sustainable agriculture and this research has the potential to divert ash from landfills and convert a current waste product into a useful agricultural product," says Goodyear. Two more field seasons are scheduled to determine long-term effects of ash on soils and crops. In

addition, turfgrass trials will be established to assess the potential for non-food use of agricultural ash.

Dr. Goodyear received over \$260,000 in research support from the Natural Sciences and Engineering Research Council and Nova Scotia Power.

Breaking New Ground

NSAC Research on Reproductive Longevity



Bridget Huelin, a research technician with Performance Genomics Inc., checks the mice to determine if they are pregnant for embryo collection.

NSAC has acquired ownership of a special mouse colony developed in Ottawa by the federal agriculture department. The colony consists of seven lines which have been genetically selected for more than 22 generations (15 years) for increased reproductive longevity and four unselected control or comparison lines. The College intends to mount a major research and development program to identify and determine the mode of action of genes which are responsible for increased reproductive performance of the selected lines.

Performance Genomics Inc., established in 1997 by the NSAC to address the research and development opportunities in the rapidly expanding field of animal genomics will manage the colony and lead the research program. In this multi-disciplinary, multi-institution-

al, multi national project, a highly trained group of experts in quantitative genetics, molecular genetics and reproductive physiology at the NSAC and its public and private collaborators will utilize the latest molecular techniques to identify potential breeding markers in the mouse colony. The information obtained on the function of these genes will also lead to a better understanding of the biological processes behind superior performance, thereby providing a means of further refining genetic improvement strategies.

AgriTECH Park

Incubating Innovation, Strengthening alliances in agri-biotechnology

AgriTECH Park is an incubator for fledgling agri-biotechnology businesses. In partnership with the College, InNovacorp (Nova Scotia Innovation Corporation) and the Nova Scotia Department of Agriculture and Marketing, the AgriTECH facility provides a supportive environment for entrepreneurs to cultivate agri-biotechnology related products and services. Already having one company, ImmunoChem under its supportive wing, the Park is slated to have an additional three to five companies on site by the end of the year.

The park is modelled after a similar incubator in Dartmouth and is located on the grounds of the former NS Youth Training Centre.



AgriTECH Park

Breaking New Ground



(L to R) Dr. Al Fredeen and Dr. Ralph Martin will present the courses for on-line delivery

NSAC Signs Partnership Agreement with UPEI

The Nova Scotia Agricultural College (NSAC) signed a partnership agreement with the University of Prince Edward Island to provide the Charlottetown-based school with first-year agricultural courses beginning in September 1999.

The First Year in Agriculture at Home Initiative is the first formal partnership the NSAC has signed with another educational institution. Similar partnerships are being negotiated with the University of New Brunswick, Memorial University Newfoundland and University College of Cape Breton.

"We are taking every step we can to ensure the students taking the course at UPEI have the same educational experience as those students taking it in Truro,"

says NSAC Principal Garth Coffin. "We are very excited about providing quality agricultural programming across the region and other such partnerships are in our future." Agricultural Economics will be available this September at UPEI, followed by courses in Food Security and Agricultural Ecosystems in January 1999 and September 1999, respectively.

NSAC and StFX Join Aquatic Resources and Aquaculture Programs

The Nova Scotia Agricultural College and St. Francis Xavier University are preparing to work together in a cooperative venture that could reap many benefits for students of aquaculture and aquatic resources.

A Memorandum of Understanding (MOU) has been signed to establish a cooperative initiative between the NSAC aquaculture program and StFX's new Interdisciplinary Studies in Aquatic Resources (ISAR) program. The plan will facilitate student exchanges and foster educational and research collaborations between the faculties of the respective programs.

"This arrangement is a natural; combining the specific production and management focus of the NSAC program with the broader, resource issues orientation of the StFX program," said Dr. Derek Anderson, Head of the Animal Science Department at NSAC. "Students and faculty of both institutions will benefit from the opportunity for exchange in an effort to address the emerging needs of Atlantic Canada's coastal communities."



Our People Our Future

The NSAC takes a leading role in providing education, research and public service in the agricultural and food industries and related disciplines. The university-college is dedicated to helping people acquire the skills, wisdom and independence needed for a lifetime of learning and contribution to the well-being of Atlantic Canada and other regions, both Canadian and international.

Financial Summary

*The Nova Scotia Agricultural College....
bringing the world to our students.*

1997-1998 Nova Scotia Agricultural College Summary of Operating Expenses and Revenues

	<i>Gross Expenditures</i>	<i>Less Revenue</i>	<i>Net Expenditures</i>
Administration	2,127,800	(194,400)	1,933,400
Academic Programs	7,487,200	(603,100)	6,884,100
Library Services	506,400	(17,000)	489,400
Continuing/Distance Education	344,400	(280,000)	64,400
Physical Plant	2,727,500	(800,200)	1,927,300
Ancillary Services	1,784,300	(1,943,300)	(159,000)
Total	\$14,977,600	(\$3,838,000)	\$11,139,600

Funding Sources from April 1, 1997 to March 31, 1998

Student Tuition	2,637,700
Other Atlantic Provinces	400,000
NS Council on Higher Education	3,125,000
NS Department of Agriculture & Marketing	4,976,000
Total	\$11,139,600